PORTABLE PRINTING PRESSES
FOR THE BLIND

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sections abound in attractive quackery on the beneficent medicinal properties of all citrus-fruits, and especially grapefruit. This remedial property is being assigned to everything present in the fruits—the "alkaloids" said to be present, the citric acid, the potassium phosphate in the pulp, and the oils in the peel. If it is upon the oil present that we must depend for this elixir, then a tablespoonful of pure gum-turpentine will furnish the same amount of remedial as an entire crate of citrus-fruit, providing we eat the peel and all. If it is due to the phosphoric acid as phosphate, as Dygert would have us believe, then a glass of cow's milk would be equivalent to a dozen grapefruit in this life-giving entity. If it is due to the alkaloids present in the citrus-fruits, then they have no therapeutic value, for no alkaloid has been detected in any of the citrus-fruits regularly marketed in this country, and it is not likely that an alkaloid exists in any of the citrus family."

PORTABLE PRINTING-PRESSES FOR THE copyone BLIND

ANY BLIND PERSONS are highly proficient on the typewriter, a fact which is not strange, since it is said that the first typewriting-machine was invented by a blind man. Another inventor, named Cayzerges, who was suddenly struck with blindness, invented an ingenious apparatus described in Larousse Mensuel (Paris), by means of which a blind man can readily correspond with a normal person. This consists of an adjustable combination of two typing machines, one of which makes the ordinary letters, while the other imprints on soft paper the raised Braille characters, which all blind persons are now taught to read by means of the sense of touch. The two machines are operated by the same keyboard, the forward carriage controlling the Braille writing and the rear carriage the ordinary writing. The two portions can be separated by a special mechanism when only one copy is required. Still simpler is a small portable pocket printing-press of which one or two kinds are in use; the one which goes by the name of the Ernest Vaughan press not only permits the blind and the normal person to correspond, but since it requires no special training, it enables any person who is willing to take the trouble to transcribe literary and scientific works in Braille characters so as to enlarge the opportunities of the blind for instruction and entertainment. The Paris review states that this little press is simple in construction, modest in price, and capable of being carried in the pocket. The essential feature of it is the doublefaced type, having the raised Braille characters on one end and ordinary type on the other. When used by the blind man he takes from the case the previously inked characters and places them in the composing-stick. He has no difficulty in doing this, since he recognizes them by the Braille letters on the upper end. When the line of type has been set up, the impression is made by means of a lever or roller; the composing-stick is then placed one hole lower in the frame and the second line is set up and printed. It is stated that the blind person by the use of this apparatus can without any special training easily set up two lines per minute, each line containing twenty to twenty-five letters; moreover, he will have the very great advantage of being able to reread and correct his correspondence in a way not possible when he makes use of either the pen or the typewriter. When the press is used by a person of normal sight in corresponding with the blind person, the operation is the same, except that the types are reversed, so as to bring the ordinary alphabet to the top; the Braille characters on the bottom are then made to print corresponding characters in soft paper laid on a regular Braille board. In this case the upper letters are, of course, not inked.

The Vaughan press, especially devised to enable the ordinary individual, unskilled as a printer but possessing the leisure, to print books for the benefit of his blind friends, or as an exercise of humanity, is a modification of the one just described. The case contains a thousand characters distributed in boxes ar-

ranged around three sides of a central compartment intended to hold the composing-stick while the type is being set up. This composing-stick has its top and bottom in the form of removable covers, and a frame is included which is divided by parallel bands of wood, with spaces corresponding to lines between them; at one side these bands are provided with little grooves in which the tongues of the characters can be inserted. The typesetting is very simple, the letters being placed side by side, the capital letters being turned toward the operator; the words are separated from each other by leaving one groove free. When all the lines, which are twenty in number, have been filled, the page is reread and corrected, if necessary. The cover is then replaced on it and the composing-stick reversed; the second cover is then lifted off, allowing the Braille text to appear. This text can be readily printed on an ordinary Braille press; the paper used is slightly damp, and a sheet of rubber is placed between it and the roller, which exerts the necessary pressure. Many copies can be rapidly printed from the same page of text.

SHALL WE BE OLD AT TWENTY?

THAT THE INTERVAL between youth and age is shortening, is the somewhat startling statement made in Good Health (Battle Creek, Mich.), presumably by Dr. J. H. Kellogg, the editor. This means that the peculiarities of old age are now showing themselves earlier, owing, he thinks, to degenerative forces that must destroy the race if not controlled. The proportion of individuals who now reach a great age, he says, is much smaller than it used to be, despite our improvements in sanitation and preventive medicine. are keeping more children alive by these expedients; but the real measure of the race's vigor, Dr. Kellogg asserts, is at the other end of man's life; and here he finds our present generation lamentably deficient. He is afraid that old age is creeping down to meet youth, so that we shall ultimately be old at twenty. We read:

"When, thirty years ago, the writer raised the question, 'Are we a dying race?' a strong protest arose from every part of the country against the mere suggestion of such a preposterous idea as that a race degeneration and extinction were possibilities.

"Within the last twenty years, however, there has been accumulating such a vast amount of evidence of racial deterioration, especially in civilized lands, that at the present time no student of anthropology or eugenics will hesitate to admit that there are present in every civilized community degenerative influences which are daily increasing in force, and which, if not radically controlled, must, in time, destroy the race.

"One of the decided evidences of race degeneracy, to which the writer has for nearly forty years been directing attention, is the marked falling off in the proportion of centenarians to the

rest of the population.

"The real measure of the physical vigor of a race is not the age at which the average man dies, but the proportion of individuals who attain to great age. Cholera, yellow-fever epidemics, and other plagues in former times weeded out the weaklings. drunkards, debauchees, and other classes of the unfit. By keeping these alive through quarantine and public sanitation, the average longevity is increased, while both the actual number as well as the proportion of centenarians have been diminishing. We have been making ourselves believe that the tree was flourishing because of the great number of young sprouts about the bottom, while the trunk was dying at the top.

"Statistics of all highly civilized countries show a steady falling off in the number of centenarians. We have in this country at the present time less than 4,000 centenarians, or one in 25,000 of our hundred million. Bulgaria has 3,000 centenarians in a population of 3,000,000, or one in every 1,000 twenty-five times as many in proportion. Older civilizations are worse off than we are. In France, the proportion of centenarians is one in 190,000 of the population; in England, one in 200,000; and in Germany, one in 700,000. In these countries decay has extended so far down the trunk that it has nearly reached the level of the young shoots.

"Senility and youth are approaching each other, and the

wild land, which ranges from \$1 to \$5 per acre. To quote further:

"The uses of the coconut-tree and its fruit are many. To the native of these islands it may be said to provide all the necessaries of life—food, shelter, and clothing. The full-grown tree attains a height of fully ninety feet, and the timber may be used as logs for bridging streams and for house-building. The trunk of a tree may be split into lengths which bend readily, and in this form the timbers serve useful purposes in house construction. The plaited leaves are used for thatching the roofs and for making the outer covering of the walls. They are made into beds to sleep on, into mats for the floor, and they serve as plates to eat from. Beautiful baskets and fans are made of the leaves.

The flesh of the nut forms an excellent and nourishing food; it produces oil for cooking, for mixing native puddings, for lighting the house, and anointing the body. The milk forms a palatable and refreshing drink, especially that from the young nut. An industry of no little importance among the natives of the different islands is the manufacture of twine, known as sennet, from the husk of the nuts. This material is used chiefly to tie the timbers together in construction of native houses, no nails being used in such work. Twine and rope of any size up to towing line are made from the fiber. The natives are adepts in weaving fishing-nets and door-mats of the fiber. The 'cabbage,' as the soft central part of the head of the coconut-palm is called, can be made into a delicious salad. It is not the privilege, however, of many to enjoy this delicacy, as few persons can afford to sacrifice so valuable a tree for such a purpose.

"Some of the natives of the South Seas make what is called coconut 'toddy' out of the nuts. The liquor is intoxicating to a high degree, and upon most plantations its manufacture is forbidden,

owing to the trouble that it causes.

ABOUT GRAPEFRUIT

THE GRAPEFRUIT, which we ought to call the "pomelo," but do not, has won its way to the breakfast-tables of most Americans since the boyhood of all past middle age. It would probably stand a good show of winning out in a contest for a "national fruit," which we ought to have, as well as a national flower. Accessible literature, strange to say, has little to tell us of this refreshing citrus-fruit, and the information furnished by an editorial writer in The Journal of the American Medical Association (Chicago) is both curious and interesting. As late as 1885, he tells us, the fruit was described as "more showy than useful, altho it was incidentally noted that the juice is "rather refreshing." Thousands of carloads are now annually shipped to market. Says the paper just named:

"Grapēfruit is a popular name for the edible fruit of Citrus decumana, now widely used in the

dietary of American households. Altho the designation 'pomelo' has been adopted in scientific circles in this country, and the fruit is termed 'pomelow' by the English of Ceylon and India, the now familiar expression grapefruit, selected in recognition of the fact that the fruit commonly occurs on the trees in large clusters somewhat resembling those of grapes, is likely to be retained. The name 'shaddock,' which was likewise employed by some a few decades ago, is all but abandoned now.

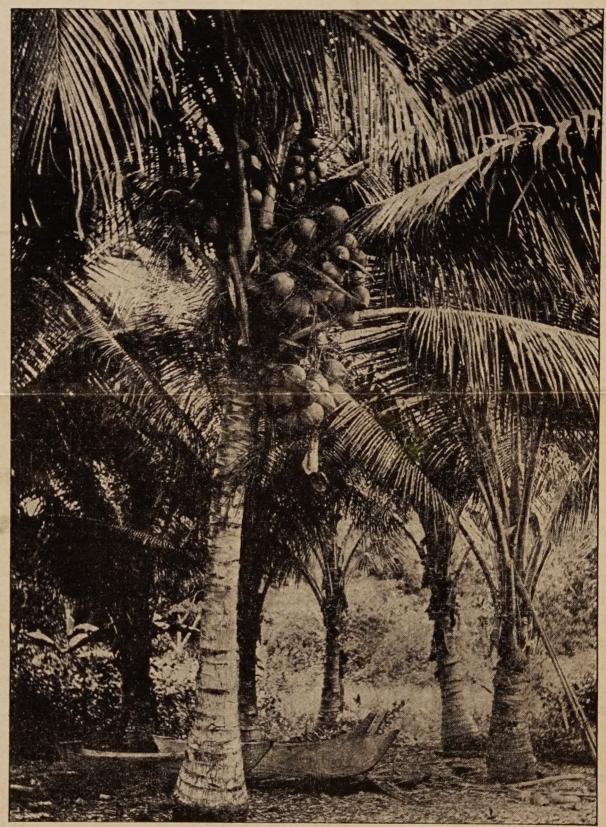
"Altho even younger persons can recall when grapefruit was comparatively rare as a component of our regimen, it is not easy to realize that the first shipments from Florida were made

subsequent to 1880.

"The edible portion—the pulp or juice—deserves first attention from the dietetic standpoint. It contains sucrose and reducing sugars in about equal proportions, the total reaching 30 grams, or approximately one ounce, in a large specimen of some varieties in which this part may weigh three-quarters of a pound or more. Thus a diabetic indulging in half a grapefruit

may readily ingest from a quarter to half an ounce of sugar in a product in which this may be unsuspected, owing to the sour taste. The latter is due, as in the case of other citrus-fruits, to citric acid, the content varying from about 2 to 6 grams per fruit, depending on the size, variety, and stage of ripeness or storage. Whereas the sugars increase during storage, the acidity decreases.

"The peel or rind of the grapefruit offers not a little of interest to the chemist. The essential oils are represented by limonen, citral, pinene, and alcohols. Besides the pectin there is, further, a glucosid naringin, which is synonymous with the 'bitter principle' of the fruit. Whether this compound, in particular, and other components have any pharmacologic potencies remains to be ascertained. Nevertheless, therapeutic efficacy



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-AND THEY PROVIDE FOOD, SHELTER, AND CLOTHING.

has been ascribed to the pomelo by more than one writer. Evidently the bitterness has suggested the potency of quinin or a similar alkaloid; hence the assurance that 'a cool, juicy pomelo before breakfast is one of the pleasantest and surest antidotes imaginable for malaria.' It is stated that subtropical or tropical countries are prone to offer grapefruit or similar citrus-fruits as a safeguard against malaria, and publications from these sources contain similar advice.

"We may well enjoy the luscious grapefruit, content with its small modicum of nutriment and large share of pleasures of the palate. The juice fruits are not selected primarily for their supply of calories. They have other compensating virtues which put them in the class of acceptable dietary accessories. One need merely recall the antiscorbutic properties of the orange—and possibly of citrus-fruits in general. The government expert has sounded the proper note of warning in these words:

"The dailies and periodicals of promoters in citrus-fruit



